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#25 Appeal
5/9/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application

Petrus Cornelis Jozef BEENTJES

Examiner: T. Kilkenny

Serial No.: 09/341,637

Art Unit: 1733

Filed: July 15, 1999

For: METHOD AND APPARATUS FOR STRIP-COATING A METALLIC STRIP-SHAPED SUBSTRATE WITH A PLASTIC BAND AND STRIP THUS OBTAINED

REQUEST FOR RECONSIDERATION

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Office Action of December 5, 2002, the period for response being extended by the concurrently filed petition and fee therefore, Applicant provides the following remarks in support of the Request for Reconsideration.

Claims 1-20 are pending.

I. Claims 1 and 3

Claims 1 and 3 stand rejected under 35 USC § 103(a) as being unpatentable over the "Admitted Prior Art" in view of Aoki et al. (U.S. Patent No. 4,007,078), Ichikawa et al. (U.S. Patent No. 4,994,130) and Murphy (U.S. Patent No. 4,289,559) and/or Bradley (U.S. Patent No. 3,959,567).

The Office Action asserts it would have been obvious to modify an extrusion coating process (described in the first full paragraph of page 2 of the present specification) to avoid use of the initially produced extruded material in view of Aoki et al. and Ichikawa et al. by using the vertically moveable rollers (of Murphy or Bradley) to achieve the claimed invention.
In particular, the Office Action states that because Murphy and/or Bradley each disclose the use of vertically moveable rollers, i.e., upper laminating roll 24 and roller 12, respectively, incorporation of such elements with the teachings of the other references would have been an obvious improvement.

A. Bradley

Applicant respectfully presents that Bradley teaches dry lamination of two ready sheets or ready films, one of which comprises a thermoplastic resin wherein the surfaces of the materials to be laminated are activated during, and just before, lamination exposure to the low energy particles of a gas discharge plasma.

Such a lamination, e.g., as described in Bradley EXAMPLE 8 with respect to laminating aluminum foil with a polyethylene film, resembles what is called film-laminating in the present specification, and has the disadvantages mentioned in the present specification, most importantly to coat (semi-) continuously at a high speed.

According to this reference, the speed may be from 2 ft/min up to 48 ft/min (Example 6). In contrast, via the coating process of the present invention, the line speed may be increased to a significantly higher speed, e.g., in the order of more than 100 m/min, preferably more than 200 m/min, thus achieving significant advantages.

B. Murphy

Murphy teaches a process and apparatus for heat laminating various types of light gauge plastic film to a heavy gauge substrate of plastic or other material. Here ready-made sheets or films are laminated together. In fact, the same comments with respect to Bradley apply to Murphy. Specifically, Murphy is an embodiment of the old conventional lamination process and suffers the same disadvantages as mentioned above. Furthermore, Murphy does not point away from lamination, let alone towards the presently recited coating process.

C. Vertically Moveable Rollers

In any event, Applicant directs the Examiner's attention to feature (v) of claim 1, wherein it is recited that "pressing the plastic strip onto the substrate by closing the contact roll and where

applicable breaking off the plastic strip and stopping the plastic strip being led away, while the substrate and the cooling roll are connected by the plastic strip".

However, Applicant respectfully presents neither the upper laminating roll 24 of Murphy nor the roller 12 of Bradley function in the manner recited by element (v). In fact, Bradley presents (see column 5, beginning at line 25) the roller 12 is rotably mounted in a yoke 14 which can be moved toward or away from roller 13 by crank 15 to thereby vary the nip and the compression between them. Thus, the roller is not moveable so as to be in contact with the substrate (while coating), or out of contact with the substrate (while leading away initially produced plastic strip) as recited by the present claims, but the roller is only moveable to control the laminating nip (dimension/force).

The same applies to the vertically moveable rollers of Murphy (see column 2, beginning at line 60). An upper laminating roll 24 is rotatably mounted above lower laminating roll 22, the upper laminating roll is vertically movable by standard hydraulic or pneumatic pressure control means 26. Again, no mention of a two-way function as contacting respectively non-contacting roller.

Thus, as the upper laminating roll 24 of Murphy and the roller 12 of Bradley are used to apply heat and pressure to the film-substrate and to force the films into better contact, respectively, the cited references provide neither a teaching nor suggestion to "[press] the plastic strip onto the substrate by closing the contact roll and where applicable breaking off the plastic strip and stopping the plastic strip being led away, while the substrate and the cooling roll are connected by the plastic strip". Only with hindsight can these laminating rolls be combined with a different process for a different purpose to arrive at the present invention.

D. Motivation

Additionally, even if each recited element is shown in the art (a position with which Applicant respectfully disagrees), and one of ordinary skill could have combined all sorts of different features from different pieces of prior art, the Office Action fails to identify the particular teachings which would have guided such a person to combine the particular features

from the various references to achieve the present invention. Applicant respectfully presents, for example, based on the teachings of the cited references, the Office Action has not identified why one of ordinary skill would have been motivated to provide or substitute the vertically movable structures of Bradley or Murphy in bag-making machine G or printing machine H of Aoki et al. or hot press bonding rollers 2, 2' of Ichikawa et al., to press the film and substrate together, nor as part of the structure leading the plastic strip away.

Reconsideration is therefore requested.

II. Claims 2, 4-6 and 9-20

Claims 2, 4-6 and 9-20 stand rejected under 35 USC § 103(a) as being unpatentable over the "Admitted Prior Art" in view of Aoki et al., Ichikawa et al. each of Murphy and Bradley, in further view of Smith et al. (U.S. Patent No. 5,407,702). The Office Action asserts that it would have been obvious to incorporate various features of Smith et al. to the combination as discussed with respect to the rejection of claims 1 and 3 to achieve the invention recited by each the these rejected claims. However, as Smith et al. fails to cure the deficiencies of the references discussed in Section I, above, reconsideration is requested.

III. Claim 7

Claim 7 stands rejected under 35 USC § 103(a) as being unpatentable over the "Admitted Prior Art" in view of Aoki et al., Ichikawa et al. each of Murphy and Bradley, Smith et al., in further view of Nishida et al. (U.S. Patent No. 5,952,199). However, as Nishida et al. fails to cure the deficiencies of the references as discussed in Sections I and II above, reconsideration is requested.

IV. Conclusion

In view of the above, reconsideration and passage of this application to issue are respectfully requested.

Respectfully submitted,

Date: May 5, 2003

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